DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-006473 Address: 333 Burma Road **Date Inspected:** 28-May-2009

City: Oakland, CA 94607

OSM Arrival Time: 1845 **Project Name:** SAS Superstructure **OSM Departure Time:** 645 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** and Tower Fabrication

Summary of Items Observed:

CWI Inspectors: Mr. Li Le, Mr. Shi Lin and Mr. Lin Jang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP340-001, DP125-002, DP286-001, DP474-001, DP503-001, DP471-001, DP120-001, DP120-002, DP313-001, DP341-002, DP124-001, DP314-001, DP394-001, DP443-001, DP449-001, DP393-001, DP260-001, DP151-001 and DP231-001.

Tower Bay 10

The QA Inspector observed ZPMC welder Ms. Wang Shouqin, stencil 201750 is using welding procedure specification WPS-B-T-2221-B-S2 to make submerged arc groove weld NSD1-FESA3-1A/D-2A. The QA Inspector observed ZPMC Quality Control personnel monitoring this welding and QC CWI Inspector Mr. Chen Shan Hua has recorded Ms. Wang Shouqin having a welding current of approximately 570 amps, 29.0 volts and a

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travel speed of 540 mm per minute. Items observed by the QA Inspector appear to comply with project specifications. See the photograph below for additional information.

The QA Inspector observed ZPMC welder Mr. Cui Chunlei, stencil 205642 is using welding procedure specification WPS-B-T-2211-B-UC-B to complete shielded metal arc tack weld ESD1-FASA4-2A/E-4. The QA Inspector observed that the base material where the tack weld was made had been preheated with a torch and ZPMC QC personnel had verified the base material preheat of 110 Degrees Celsius prior to commencement of welding. The QA Inspector measured a welding current of approximately 180 amps. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Wang Wei, stencil 203793 is using welding procedure specification WPS-B-T-2211-B-UC-B to complete shielded metal arc tack weld ESD1-FASA4-2A/E-3. The QA Inspector observed that the base material where the tack weld was made had been preheated with a torch and ZPMC QC personnel had verified the base material preheat prior to commencement of welding. The QA Inspector measured a welding current of approximately 230 amps. Items observed by the QA Inspector appear to comply with project specifications.

OBG Bay 2

This QA Inspector observed ZPMC welder Mr. Jiang Yongsheng, stencil 0207465 is using flux cored welding procedure WPS B-T-2213-B-U3-F to make OBG Segment 2F weld 27. The QA Inspector observed a welding current of approximately 216 amps and 24 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.



Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Dawson,Paul Quality Assurance Inspector **Reviewed By:** Clifford, William QA Reviewer